

In response to that Office Action, please amend the above-identified application as follows. For the Examiner's convenience all the remaining claims, whether currently amended or not, are set forth below.

IN THE CLAIMS:

Please amend Claims 1 and 8 to read as follows. A version of the amended claims, marked to show the changes made thereto, is appended.

- Sub D1  
C1
1. (Twice Amended) A photoelectric converter comprising a photoelectric conversion element of a laminated structure comprising:
- a first electrode layer;
  - an insulation layer for blocking the passage of holes and electrons;
  - a photoelectric conversion semiconductor layer;
  - an injection blocking layer for blocking the injection of only one of the holes and electrons to the photoelectric conversion semiconductor layer;
  - a second electrode layer; and
  - a switching means for operating the converter by switching through the following three operation modes a) through c):
    - a) an idling mode for emitting one of the holes or the electrons from the photoelectric conversion element;
    - b) a refresh mode for refreshing the other of the holes or the electrons accumulated in the photoelectric conversion element; and

C1  
cnt.

c) a photoelectric conversion mode for accumulating at least one of pair of holes and electrons generated in accordance with an amount of incident light.

Sub E1

2. (Twice Amended) The photoelectric converter according to claim 1, wherein a potential difference  $V_{dg}$  obtained by subtracting the potential of the second electrode layer from the potential of the first electrode layer of the photoelectric conversion element in the idling mode is smaller than a potential difference  $V_{dg}$  obtained by subtracting the potential of the second electrode layer from the potential of the first electrode layer of the photoelectric conversion element in the photoelectric conversion mode.

Sub D2

3. (Amended) The photoelectric converter according to claim 1, wherein a recess mode of the photoelectric conversion element is provided for applying a zero electric field to each layer before the idling mode.

7. (Not Currently Amended) The photoelectric converter according to claim 1, wherein a plurality of the photoelectric conversion elements are arranged one-dimensionally or two-dimensionally, a switching element is connected for each of the photoelectric conversion elements, all the photoelectric conversion elements are divided into a plurality of  $n$  blocs, a light signal of  $n \times m$  of all the photoelectric conversion elements divided into  $n$  blocs is output with a matrix signal wiring by operating the switching element for each of the blocs, an intersection part of the matrix signal wiring comprises a lamination structure in which at least a first electrode layer, an insulating layer, a semiconductor layer and a second electrode layer are provided in this order, and each layer of the lamination structure

is formed with the same layer as each of the first electrode layer, the insulating layer, photoelectric conversion semiconductor layer and the second electrode layer of the photoelectric conversion element.

8. (Twice Amended) A system comprising:

a photoelectric converter comprising a photoelectric conversion element of a laminated structure comprising:

a first electrode layer;

an insulation layer for blocking the passage of holes and electrons;

a photoelectric conversion semiconductor layer;

an injection blocking layer for blocking the injection of only one of the holes and electrons to the photoelectric conversion semiconductor layer;

a second electrode layer; and

a switching means is provided for operating the converter by switching through the following three operation modes a) through c):

a) an idling mode for emitting one of the holes or the electrons from the photoelectric conversion element;

b) a refresh mode for refreshing the other of the holes or the electrons accumulated in the photoelectric conversion element; and

c) a photoelectric conversion mode for accumulating at least one of pair of holes and electrons generated in accordance with an amount of incident light;

a signal processing means for processing a signal from the photoelectric converter;